

# CITY OF NORWAY



## **COST OF SERVICE STUDY WATER and SEWER FUND**

**March 2004**

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**CITY OF NORWAY  
COST OF SERVICE STUDY  
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## **I. EXISTING CUSTOMERS AND USAGE**

### **A. Existing Customers Usage & Rates**

There are approximately 1,600 active water customers served within the City and Norway Township by the current water utility system. With apartments and multiple units, the total units billed is approximately 1,650 units per the City's current records. The sewer system serves approximately 1,460 sewer customers with approximately 235 Township customers served by the City's existing wastewater collection and treatment system.

The water system bills approximately 107 million gallons per year (MG/yr) of water and the wastewater billing is approximately 74 MG/yr. billed.

Existing water rates (effective as of July 1997) include a City and Township residential minimum bill of \$18.50 per month, which includes usage of the first 4,000 gallons. Any additional usage beyond the 4,000 gallons is billed at a commodity of \$1.50/1,000 gallons. Commercial and industrial water billing is based on an equivalent dwelling unit (EDU) rate structure with one (EDU) equal to 3,337 gallons. The minimum bill is \$18.50 per month times a rate category depending on the commercial and industrial use. The minimum water bill for commercial use is \$37.00 per month, which includes the first 6,000 gallons and \$55.50 per month for industrial users, which includes the first 9,000 gallons. Any usage beyond the minimum gallons included is billed at \$1.50/1,000 gallons.

The existing sewer rates (effective as of November 2000) are based on a debt and retirement user charge per unit, along with a capital equity surcharge per meter or per unit. There is also a usage charge of \$4.00/1,000 gallons and a capital equity charge of \$1.00/1,000 gallons. The minimum bill for metered service is \$19.44 per month, which includes 3,000 gallons per unit. The Township sewer customers pay 1.33 times higher debt retirement and usage charge on a monthly basis per meter or per unit. The Township customers pay a minimum monthly bill of \$20.57 which includes the first 3,000 gallons per unit.

### **B. Assumptions**

In order to project future revenue and expenditure requirements for both the Water and Sewer Funds, several assumptions need to be made concerning projecting O&M budgeted expenditures, water and wastewater billed usage, future connections, budgets for both capital repair and replacement, and desirable cash reserves in both the Water and Sewer Funds.

Table 1 shows a proposed meter equivalent table for both the Water and Sewer Funds based on equivalent meter/service ratios developed by the American Water Works Association (AWWA). The residential user with a  $\frac{3}{4}$ " meter would pay 1 times the readiness-to-serve (RTS) monthly charge whereas a customer with a 2" meter would pay 2.9 times the  $\frac{3}{4}$ " RTS monthly charge. This ratio is based on the difference of a  $\frac{3}{4}$ " vs. 2" meter and the peak demands for delivering water to the customer based on meter size and also takes into account the differences in servicing the different size meters. This equivalent meter structure is proposed for both the water and sewer system allocation of costs. The following assumptions were used for both the Water and Sewer Fund cost of service allocations.

**1. Water Fund Assumptions:**

- Use City's budgeted expenses for O&M thru FY 07/08 (approx 5% annual increase).
- Estimated total meter equivalents of 1763.
- Billed water of 107.23 MG/yr.
- Add 5 equivalent meters/yr at 5,000 gals/month additional billed flow.
- Change billing rate structure from EDU with a minimum bill to a readiness-to-serve (RTS) monthly rate plus a commodity rate at \$/1000 gallons. The fixed RTS monthly rate, based on meter equivalents, pays for fixed costs of capital repair/replacements, administration, debt service, and building cash reserves back up to acceptable levels. The commodity rate pays for O&M expenses. This rate structure allocates the cost of service and is easier to administer and explain to the public for systems that have metered water. The RTS charge is the monthly "mortgage" payment that the fund needs to pay for the fixed costs of the fund before a single drop of water is pumped and the commodity rate pays for the O&M that varies depending on the amount of water pumped.
- Budget \$30,000/yr for repair/replacement and cash reserves. (9% of O&M budget which is in good range of budgeting).
- Budget \$24,000 and \$12,000 over two years (FY 04/05 & FY 05/06) for wellhead protection program and vulnerability assessment and emergency response plans.
- Budget \$17,000/yr for five years in both water and sewer fund for meter replacement program.

**2. Sewer Fund Assumptions**

- Use City's budgeted expenses for O&M thru FY 07/08 (approx 5% annual increase)
- Estimated total meter equivalents of 1602.
- Billed sewer of 73.8 MG/yr.
- Add 2 equivalent meters/yr at 5,000 gals/month additional billed flow (Based on budgeted taps fees).
- Change billing rate structure from a debt retirement/user & charge/meter and capital equity surcharge based on \$/1,000 to a readiness-to-serve (RTS) monthly rate plus a commodity rate at \$/1,000 gallons. The fixed RTS monthly rate, based on meter equivalents, pays for fixed costs of capital repair/replacements, administration, and debt service. The commodity rate pays for O&M expenses.
- Budget \$25,000/yr for sewer main repair/replacement and \$10,000/yr for plant repair/replacement and set a goal of 25% of O&M expenses as an annual goal to fund capital repair/replacement and to re-build cash reserves. This goal would mean setting aside up to \$98,000/yr into the fund by FY 07/08.
- Budget \$17,000/yr for the meter replacement program.

- Township customers would pay 1.25 times the City customers' readiness-to-serve monthly rate.

## **II. REVENUE REQUIREMENTS – WATER FUND**

### **A. Expenditures**

Table 2 is a summary of the Water Fund expenditures from FY 00/01 through the projected FY 07/08. The total operating expenses are from the actual audited City financial statements, along with the adopted budget and projected expenses by City staff through FY 07/08.

As shown on line 45, total operating expenses are budgeted at approximately \$314,000/year, and will increase to approximately \$326,000/year by FY 07/08. The Wellhead Protection and Vulnerability Assessment Studies are budgeted for the years FY 04/05 and FY 05/06.

### **B. Capital Outlay and Repair/Replacement Funding**

Table 2 also shows the actual and budgeted capital outlay and repair/replacement funding along with the existing debt service bond payments for the Water Fund. Capital outlays include \$25,000/year for watermain replacement and the meter replacement program is budgeted at \$17,000/year. \$5,000 is also budgeted for plant improvements with the total Water Fund expenditures shown on line 62 are projected to be between \$530,000 and \$598,000 through FY 07/08.

### **C. Revenue**

The operating and non-operating revenues for the Water Fund are also detailed in Table 2 with current water sales and debt retirement revenue, along with miscellaneous tap fees and penalties totaling \$521,200/year. Non-operating revenues include the transfers out to cover the City administration/staff and the hydrant rental from the general fund to cover the cost of fire protection provided by the water system operation. Total revenues under the current rates are projected to actually decrease through FY 07/08 as shown on line 82.

### **D. Net Revenues (Deficit) With Current Rates**

Table 2 shows the annual net revenue (deficit) starting in FY 03/04 under the current rates with projected deficits to increase to almost (\$130,000) by FY 07/08 under the current rates without depreciation expense.

## **III. ALLOCATION OF COST OF SERVICE – WATER FUND**

### **A. Readiness-To-Serve Meter Charge & Commodity Charges**

Table 3 is a summary of the preliminary allocation of cost of service for the Water Fund with the assumptions shown in the upper left-hand corner of the table. The preliminary allocation of cost assumes that all operating expenses would be paid through a commodity charge. As shown in Table 3, assuming a metered sale of approximately 107 million gal/year, the commodity rate required in FY 03/04 through FY 07/08 would need

to vary from \$2.55/1,000 gallons to \$3.00/1,000 gallons for a balanced budget. The current water commodity charge is set at \$1.50/1,000 gallons beyond the minimum gallons allowed under either the residential or EDU rate category for commercial and industrial use.

The readiness-to-serve (RTS) meter rates are allocated to all the capital outlay and repair and replacement, along with existing annual bond principal and interest payments, along with the transfers out of the fund for City administration. The required RTS meter charge per equivalent meter is shown to vary from \$11.44 for FY 03/04 to \$14.64 through FY 07/08 to balance the budget.

Based on an average monthly residential use of 3,000 gal/month, a total estimated average monthly residential user cost of \$23.62 would be required by FY 07/08 to balance the Water Fund budget based on the assumptions for the expenditures and budgeted capital repair and replacement detailed for the Water Fund.

#### **IV. RATE DESIGN SCHEDULES – WATER FUND**

##### **A. Proposed Rates**

Table 4 presents the proposed water rate schedule effective starting in February 2004 with two-phased increase for FY 04/05 from July through December, and the next increase from January through June 2005. The proposed commodity rate would be \$2.75/1,000 gallons starting in February 2004 and through FY 05/06 and increase to \$3.00/1,000 gallons in FY 07/08. The phased-in readiness-to-serve rates per equivalent meter would start out at \$12.30/month effective February 2004 and would increase up to \$15.10/month by FY 07/08 as shown in Table 4.

The average City and Township residential monthly water bill would increase from the minimum \$18.50/month to \$20.55/month starting in February 2004 and increase up to \$24.10/month by FY 07/08. The average City and Township residential monthly rates are proposed slightly higher than the calculated rates shown in line 55 on Table 3. This takes into account developing an annual surplus for the Fund to take into account any possible reduction in billed water use with rising rates.

##### **B. Impact of Proposed Rates on Customers**

Table 5 illustrates the impact of the new water rates on selected customers. The average residential customer using 3,000 gal/month will realize a monthly increase of \$2.05/month for water use. The smaller users will actually see a monthly decrease in their water bill with the larger commercial and industrial water users showing higher increases per month for water use.

Table 6 shows the calculated rates through June 2005 for both the City and Township water customers broken down by the monthly meter charge per equivalent meter and the proposed water commodity charge per 1,000 gallons.

## **V. REVENUE REQUIREMENTS – SEWER FUND**

### **A. Expenditures**

Table 7 is a summary of the Sewer Fund expenditures from FY 00/01 through the projected FY 07/08. The total operating expenses are from the actual audited City financial statements, along with the adopted budget and projected expenses by City staff through FY 07/08.

As shown on line 43, total operating expenses are budgeted at approximately \$328,500/year, and will increase to approximately \$395,890/year by FY 07/08.

### **B. Capital Outlay and Repair/Replacement Funding**

Table 7 also shows the actual and budgeted capital outlay and repair/replacement funding along with the existing debt service bond payments for the Sewer Fund. Capital outlays include \$25,000/year for sewer main replacement and the meter replacement program is budgeted at \$17,000/year. \$10,000 is also budgeted for plant improvements. The City staff desires to re-build the cash reserves in the Fund for emergencies and future capital planning. An annual goal of 25% of the O&M budget was set and to be achieved by FY 07/08. The total Water Fund expenditures shown on line 61 are projected to be between \$463,100 and \$631,122 through FY 07/08.

### **C. Revenue**

The operating and non-operating revenues for the Sewer Fund are also detailed in Table 7 with current sewer sales and capital equity revenue, along with miscellaneous tap fees and penalties totaling \$530,540/year. Non-operating revenues include interest. Total revenues under the current rates are projected to be \$533,540 through FY 07/08 as shown on line 79.

### **D. Net Revenues (Deficit) With Current Rates**

Table 7 shows the annual net revenue (deficit) starting in FY 03/04 under the current rates with projected deficits starting in FY 05/06 and totaling (\$97,582) by FY 07/08 under the current rates without depreciation expense.

## **III. ALLOCATION OF COST OF SERVICE – SEWER FUND**

### **A. Readiness-To-Serve Meter Charge & Commodity Charges**

Table 8 is a summary of the preliminary allocation of cost of service for the Sewer Fund with the assumptions shown in the upper left-hand corner of the table. The preliminary allocation of cost assumes that all operating expenses would be paid through a commodity charge. As shown in Table 8, assuming a metered sale of approximately 74 million gal/year, the commodity rate required in FY 03/04 through FY 07/08 would need to vary from \$4.44/1,000 gallons to \$5.32/1,000 gallons for a balanced budget. The current sewer commodity charge is set at \$5.00/1,000 gallons for the usage and capital equity charges beyond the minimum gallons allowed.



The readiness-to-serve (RTS) meter rates are allocated to all the capital outlay and repair and replacement, along with existing annual bond principal and interest payments, along with the transfers out of the fund for City administration. The required RTS meter charge per City customer equivalent meter is shown to vary from \$6.17 for FY 03/04 to \$11.35 through FY 07/08 to balance the budget.

Based on an average monthly City residential use of 3,000 gal/month, a total estimated average monthly residential user cost of \$27.31 would be required by FY 07/08 to balance the Sewer Fund budget based on the assumptions for the expenditures and budgeted capital repair and replacement along with the desired cash reserves detailed for the Sewer Fund.

#### **IV. RATE DESIGN SCHEDULES – SEWER FUND**

##### **A. Proposed Rates**

Table 9 presents the proposed sewer rate schedule effective starting in February 2004 with two-phased increase for FY 04/05 from July through December, and the next increase from January through June 2005. The proposed commodity rate would be \$2.50/1,000 gallons starting in February 2004 and increase in two steps in FY 04/05 to \$3.25 and \$3.50/1,000 gallons. The commodity rate would increase to \$5.25/1,000 gallons by FY 07/08. The phased-in readiness-to-serve rates per equivalent meter for City customers would start out at \$13.50/month effective February 2004 and would increase to \$13.75/month by FY 07/08 as shown in Table 9.

The average City residential monthly water bill would increase from the minimum \$19.44/month to \$21.00/month starting in February 2004 and increase up to \$29.50/month by FY 07/08. By applying a 1.25 multiplier to the City RTS charge, the average Township residential customer sewer bill would increase from the minimum \$20.57/month to \$24.38/month in February 2004 up to \$32.94/month by FY 07/08. The average City residential monthly rates are proposed slightly higher than the calculated City rates shown in line 52 on Table 8. This takes into account developing an annual surplus for the Fund to take into account any possible reduction in billed sewer use with rising rates.

##### **B. Impact of Proposed Rates on Customers**

Table 10 illustrates the impact of the new sewer rates on selected City customers. The average City residential customer using 3,000 gal/month will realize a monthly increase of \$1.56/month for sewer use. The smaller users will actually see a monthly decrease in their sewer bill with the larger commercial and industrial sewer users also showing lower rates per month for sewer use.

Tables 11 and 12 show the calculated rates through June 2005 for the City and Township sewer customers broken down by the monthly meter charge per equivalent meter and the proposed water commodity charge per 1,000 gallons.

[illegible]

	A	B	L	M	N	O	P	Q	R	S
1										
2	TABLE 2									
3	CITY OF NORWAY									
4	WATER FUND O&M EXPENDITURES (2000-2008)									
5										
6										
7										
8					Adopted					
9	Revised 03/08/04		Actual	Actual	Budget	Projected	Projected	Projected	Projected	Projected
10			FY 00/01	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08
11	EXPENDITURES:									
12	Operating Expenses:									
13		Personnel								
14		Salaries/Wages-Regular	\$ 135,004	\$ 95,195	\$ 132,900	\$ 102,583	\$ 105,661	\$ 108,830	\$ 112,095	\$ 115,458
15		Overtime	\$ 4,339	\$ 1,101	\$ 2,407	\$ 5,009	\$ 5,159	\$ 5,314	\$ 5,474	\$ 5,638
16		Fringe Benefits/FICA/MERS/Self Insured Retention/Unemployment	\$ 65,729	\$ 58,283	\$ 54,853	\$ 34,293	\$ 36,750	\$ 39,422	\$ 42,223	\$ 45,283
17		Group Insurance	\$ 26,760	\$ 14,204	\$ 23,223	\$ 29,902	\$ 35,882	\$ 43,059	\$ 51,670	\$ 62,005
18		Training/Membership/Travel/education	\$ 3,910	\$ 2,112	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
19		Subtotal	\$ 235,742	\$ 170,895	\$ 217,383	\$ 175,787	\$ 187,452	\$ 200,625	\$ 215,462	\$ 232,384
20										
21		Supplies & Materials								
22		Supplies (Operating & Office)	\$ 15,495	\$ 4,881	\$ 3,000	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
23		Printing/Postage/Publications	\$ 837	\$ 1,615	\$ 1,500	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
24		Subtotal	\$ 16,332	\$ 6,496	\$ 4,500	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
25										
26		Operation & Contractual Services			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27		Chemical Supplies	\$ 1,817	\$ 3,438	\$ 2,500	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
28		Uniform/Cleaning Expense	\$ 700	\$ 545	\$ 850	\$ 850	\$ 850	\$ 850	\$ 850	\$ 850
29		Gas & Oil	\$ 2,210	\$ 1,633	\$ 2,500	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
30		Water Transmission & Distribution	\$ -	\$ 104,478	\$ 12,000	\$ 12,000	\$ 12,500	\$ 13,000	\$ 13,500	\$ 14,000
31		Meter Expense	\$ 1,118	\$ 8,963	\$ 7,000	\$ 5,000	\$ -	\$ -	\$ -	\$ -
32		Professional Services	\$ 12,100	\$ 19,696	\$ 18,000	\$ 18,000	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000
33		Maintenance-Equipment/Buildings	\$ 1,563	\$ 15,591	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
34		Computer Expense	\$ 679	\$ 2,182	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
35		Insurance-Liability/Property/Worker's Comp	\$ 8,881	\$ 8,364	\$ 10,523	\$ 11,049	\$ 11,602	\$ 12,182	\$ 12,791	\$ 13,430
36		Telephone	\$ 2,774	\$ 1,925	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
37		Utilities	\$ 31,017	\$ 29,556	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
38		Heating Fuel(Michcon)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39		Rental/Lease	\$ 129	\$ -	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
40		Wellhead Protection					\$ 12,000	\$ 12,000		
41		Vulnerability Assessment					\$ 6,000	\$ 6,000		
42		Miscellaneous	\$ -	\$ 37	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43		Subtotal	\$ 62,988	\$ 196,408	\$ 91,873	\$ 95,399	\$ 104,452	\$ 105,532	\$ 88,641	\$ 89,780
44										
45		Total Operating Expenses	\$ 315,062	\$ 373,799	\$ 313,756	\$ 274,686	\$ 295,404	\$ 309,657	\$ 307,603	\$ 325,664
46		Annual Increase		18.6%	-16.1%	-12.5%	7.5%	4.8%	-0.7%	5.9%
47										
48	Capital & Debt Service									
49		Capital Replacement/Improvements								
50		Mains	\$ 31,627	\$ -	\$ 85,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
51		Meter Replacement					\$ 17,000	\$ 17,000	\$ 17,000	\$ 17,000
52		New Vehicles/Equipment	\$ -	\$ -	\$ 17,715	\$ -	\$ -	\$ -	\$ -	\$ -
53		Plant Improvements	\$ -	\$ -	\$ 40,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
54		Subtotal	\$ 31,627	\$ -	\$ 142,715	\$ 30,000	\$ 47,000	\$ 47,000	\$ 47,000	\$ 47,000
55		Debt service & Transfers								
56		Existing Bond Principal & Interest	\$ 228,345	\$ 226,694	\$ 226,066	\$ 225,218	\$ 228,160	\$ 226,933	\$ 225,000	\$ 225,000
57		Less Federal Grants	\$ (54,000)	\$ (55,000)						
58		Total Capital & Debt Service Costs	\$ 205,972	\$ 171,694	\$ 368,781	\$ 255,218	\$ 275,160	\$ 273,933	\$ 272,000	\$ 272,000
59										
60										
61										
62	TOTAL EXPENDITURES		\$ 521,034	\$ 545,493	\$ 682,537	\$ 529,904	\$ 570,564	\$ 583,590	\$ 579,603	\$ 597,664
63		Annual Increase		4.7%	25.1%	-22.4%	7.7%	2.3%	-0.7%	3.1%
64										
65	REVENUES:									
66	Operating Revenues									
67		Water Sales	\$ 494,633	\$ 491,795	\$ 510,000	\$ 510,000	\$ 510,000	\$ 510,000	\$ 510,000	\$ 510,000
68		Ready To Serve Fee (Debt Retirement)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
69		Tap Fees	\$ 5,019	\$ 1,500	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
70		RD Grant Funds	\$ 32,000	\$ 54,700						
71		Penalties	\$ 5,759	\$ 5,762	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700
72		Miscellaneous	\$ 3,860	\$ 953	\$ 5,704	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
73		Subtotal	\$ 541,271	\$ 554,710	\$ 525,404	\$ 521,200	\$ 521,200	\$ 521,200	\$ 521,200	\$ 521,200
74	Non-Operating Revenues									
75		Transfers In-DDA and/or Equity Fund	\$ 477	\$ -	\$ 150,000	\$ 20,000	\$ -			
76		Transfers Out For City Administration	\$ (43,356)	\$ (110,566)	\$ (120,631)	\$ (71,649)	\$ (78,487)	\$ (86,406)	\$ (95,598)	\$ (106,302)
77		Interest	\$ 31,115	\$ 31,724	\$ 35,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
78		Developer Contributions		\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -
79		Hydrant Rental	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000
80		Subtotal	\$ 21,236	\$ (45,842)	\$ 157,369	\$ 1,351	\$ (25,487)	\$ (33,406)	\$ (42,598)	\$ (53,302)
81										
82	TOTAL REVENUES(Under Current Rates)		\$ 562,507	\$ 508,868	\$ 682,773	\$ 522,551	\$ 495,713	\$ 487,794	\$ 478,602	\$ 467,898
83		Annual Increase		-9.5%	34.2%	-23.5%	-5.1%	-1.6%	-1.9%	-2.2%
84										
85	ANNUAL NET REVENUE/(DECIFIT) Under Current Rates		\$ 41,473	\$ (36,625)	\$ 236	\$ (7,353)	\$ (74,851)	\$ (95,796)	\$ (101,001)	\$ (129,766)
86										
87										

	A	D	E	F	G	H	I	J	K	L
1										
2										
3										
4				TABLE 3						
5			CITY OF NORWAY							
6		PRELIMINARY WATER FUND ALLOCATION OF COSTS OF SERVICE								
7	W/ \$30,000/yr Capital Repair/Replacement/Reserves									
8										
9	Revised 03/08/04									
10										
11	Use City's budgeted annual increase in total expenses (approx 5% increase/year)									
12	Estimated Total Equivalents=1763 (Based on City/Twp Sewer Customer Ratio)									
13	Per UP Eng report: 352,000 Avg GPD=128.48 MG/yr Pumped w/ 81% billed = 104.07 MG/yr billed									
14	UP Eng Report Shows 1435 Residential users x 5000 gal/month =71.75 MG Major Users = 35.48 MG/yr Total = 107.23 Mg/yr									
15	Budget \$25,000/yr For Main Replacement									
16	Budget \$5000/yr Plant Replacement									
17	Adding 5 Residential Equiv/Yr									
18										
19				Actual	Adopted					
20	ITEM			FY 01/02	Budget FY 02/03	Projected FY 03/04	Projected FY 04/05	Projected FY 05/06	Projected FY 06/07	Projected FY 07/08
21	O&M Expenditures & Commodity Rates									
22	Personnel			\$ 170,895	\$ 217,383	\$ 175,787	\$ 187,452	\$ 200,625	\$ 215,462	\$ 232,384
23	Supplies & Materials			\$ 6,496	\$ 4,500	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
24	Operation & Contractual Services			\$ 196,408	\$ 91,873	\$ 95,399	\$ 104,452	\$ 105,532	\$ 88,641	\$ 89,780
25	Total Revenue Required from Commodity Charges			\$ 373,799	\$ 313,756	\$ 274,686	\$ 295,404	\$ 309,657	\$ 307,603	\$ 325,664
26	Metered Sales, 1000 gals per year			107230	107230	107530	107830	108130	108430	108730
27	Commodity Charge Required per 1000 gallons metered use			\$ 3.49	\$ 2.93	\$ 2.55	\$ 2.74	\$ 2.86	\$ 2.84	\$ 3.00
28	Average Monthly Residential Commodity Charge (Based on 3000 gals/month/REU)			\$ 10.46	\$ 8.78	\$ 7.66	\$ 8.22	\$ 8.59	\$ 8.51	\$ 8.99
29										
30	Capital Costs & Readiness-To-Serve Base Meter Rates									
31	Budgeted Capital Repair/Replacement			\$ -	\$ 142,715	\$ 30,000	\$ 47,000	\$ 47,000	\$ 47,000	\$ 47,000
32	Existing Annual Bond Prin. & Interest Payments			\$ 226,694	\$ 226,066	\$ 225,218	\$ 228,160	\$ 226,933	\$ 225,000	\$ 225,000
33	Transfers Out For Administration			\$ 110,566	\$ 120,631	\$ 71,649	\$ 78,487	\$ 86,406	\$ 95,598	\$ 106,302
34	Subtotal			\$ 337,260	\$ 489,412	\$ 326,867	\$ 353,647	\$ 360,339	\$ 367,598	\$ 378,302
35	Other Revenue:									
36	Tap Fees			\$ 1,500	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
37	RD Grants			\$ 54,700						
38	Penalties			\$ 5,762	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700
39	Miscellaneous			\$ 953	\$ 5,704	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
40	Interest			\$ 31,724	\$ 35,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
41	Transfers In-DDA and/or Equity Fund			\$ -	\$ 150,000	\$ 20,000	\$ -	\$ -	\$ -	\$ -
42	Developer Contributions			\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -
43	Hydrant Rental			\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000	\$ 33,000
44	Subtotal			\$ 127,639	\$ 293,404	\$ 84,200	\$ 64,200	\$ 64,200	\$ 64,200	\$ 64,200
45										
46	Revenue Required From Readiness-To-Serve Charges			\$ 209,621	\$ 196,008	\$ 242,667	\$ 289,447	\$ 296,139	\$ 303,398	\$ 314,102
47	Number of Residential Equivalent Meters (REU)			1763	1763	1768	1773	1778	1783	1788
48	Yearly Readiness-To-Serve Meter Charge per REU			\$ 118.90	\$ 111.18	\$ 137.26	\$ 163.25	\$ 166.56	\$ 170.16	\$ 175.67
49	Average Monthly Residential Readiness-To-Serve Meter Charge			\$ 9.91	\$ 9.26	\$ 11.44	\$ 13.60	\$ 13.88	\$ 14.18	\$ 14.64
50										
51										
52	Summary Of Average Monthly Residential User Costs (3000qals/month/REU)									
53	Commodity Charge			\$ 10.46	\$ 8.78	\$ 7.66	\$ 8.22	\$ 8.59	\$ 8.51	\$ 8.99
54	Readiness-To-Serve Base Meter Charge			\$ 9.91	\$ 9.26	\$ 11.44	\$ 13.60	\$ 13.88	\$ 14.18	\$ 14.64
55	Total Estimated Average Monthly Residential User Costs			\$ 20.37	\$ 18.04	\$ 19.10	\$ 21.82	\$ 22.47	\$ 22.69	\$ 23.62
56										
57										


w/ \$30,000/yr Repair/Replacement/Reserve Funding	
w/ Meter Program, WHPP, & VA	

(5 Months)	Phased FY 04/05	
Projected	July-Dec 04	Jan-Jun 05
<u>FY 03/04</u>	<u>FY 04/05</u>	<u>FY 04/05</u>

Existing Rates For City & Twp (Based on 3000 gals/Month):

 **FLEIS & VANDENBRINK**  
**ENGINEERING, INC.**  
*Offices in Grand Rapids, Traverse City and Muskegon*  
2960 Lucerne Drive SE, Grand Rapids, MI 49546  
Phone: 616.977.1000 Fax: 616.977.1005




TABLE 6				
CITY OF NORWAY				
WATER RATE STUDY				
CITY & TOWNSHIP WATER CUSTOMERS				
CALCULATED RATES THRU JUNE 2005				
<b>PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : FEB THRU JUNE 2004</b>				
	<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>	
	5/8" x 3/4"	1.00	\$ 12.30	
	1"	1.40	\$ 17.22	
	1-1/2"	1.80	\$ 22.14	
	2"	2.90	\$ 35.67	
	3"	11.00	\$ 135.30	
	4"	14.00	\$ 172.20	
	6"	21.00	\$ 258.30	
	8"	29.00	\$ 356.70	
<b>PROPOSED WATER COMMODITY CHARGE:</b>			<b>\$2.75/1000 gallons</b>	
<b>PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : JULY THRU DEC 2004</b>				
	<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>	
	5/8" x 3/4"	1.00	\$ 13.75	
	1"	1.40	\$ 19.25	
	1-1/2"	1.80	\$ 24.75	
	2"	2.90	\$ 39.88	
	3"	11.00	\$ 151.25	
	4"	14.00	\$ 192.50	
	6"	21.00	\$ 288.75	
	8"	29.00	\$ 398.75	
<b>PROPOSED WATER COMMODITY CHARGE:</b>			<b>\$2.75/1000 gallons</b>	
<b>PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : JAN THRU JUN 2005</b>				
	<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>	
	5/8" x 3/4"	1.00	\$ 14.50	
	1"	1.40	\$ 20.30	
	1-1/2"	1.80	\$ 26.10	
	2"	2.90	\$ 42.05	
	3"	11.00	\$ 159.50	
	4"	14.00	\$ 203.00	
	6"	21.00	\$ 304.50	
	8"	29.00	\$ 420.50	
<b>PROPOSED WATER COMMODITY CHARGE:</b>			<b>\$2.75/1000 gallons</b>	
				 <b>FLEIS &amp; VANDENBRINK ENGINEERING, INC.</b> <small>Offices in Grand Rapids, Traverse City and Muskegon  2960 Lucerne Drive SE, Grand Rapids, MI 49546  Phone: 616.977.1000 Fax: 616.977.1005</small>

	A	B	L	M	N	O	P	Q	R	S
1										
2	TABLE 7									
3	CITY OF NORWAY									
4	SEWER FUND O&M EXPENDITURES (2000-2008)									
5	w/ Goal of 25% of Annual O&M in Reserves by FY 07/08									
6										
7										
8					Adopted					
9	3/8/2004		Actual	Actual	Budget	Projected	Projected	Projected	Projected	Projected
10			FY 00/01	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08
11	EXPENDITURES:									
12	Operating Expenses:									
13		Personnel								
14		Salaries/Wages-Regular	\$ 116,648	\$ 120,749	\$ 146,926	\$ 114,462	\$ 117,896	\$ 121,433	\$ 125,076	\$ 128,828
15		Overtime	\$ 14,867	\$ 16,920	\$ 11,019	\$ 11,446	\$ 11,790	\$ 12,143	\$ 12,508	\$ 12,883
16		Fringe Benefits/FICA/MERS/Self Insured Retention/Unemployment	\$ 29,819	\$ 37,218	\$ 45,643	\$ 30,834	\$ 31,600	\$ 35,107	\$ 37,412	\$ 38,350
17		Group Insurance	\$ 27,536	\$ 40,255	\$ 39,083	\$ 35,350	\$ 43,649	\$ 50,903	\$ 61,084	\$ 74,879
18		Training/Membership/Travel/education	\$ 945	\$ 922	\$ 2,000	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800
19		Subtotal	\$ 189,815	\$ 216,064	\$ 244,671	\$ 193,892	\$ 206,735	\$ 221,386	\$ 237,880	\$ 256,740
20										
21		Supplies & Materials								
22		Supplies (Operating & Office)	\$ 36,434	\$ 17,110	\$ 7,000	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500	\$ 3,500
23		Printing/Postage/Publications	\$ 182	\$ 498	\$ 500	\$ 700	\$ 700	\$ 700	\$ 700	\$ 700
24		Subtotal	\$ 36,616	\$ 17,608	\$ 7,500	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200
25										
26		Operation & Contractual Services			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27		Chemical Supplies	\$ 20,746	\$ 10,581	\$ 13,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000	\$ 14,000
28		Uniform/Cleaning Expense	\$ 974	\$ 1,020	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
29		Gas & Oil	\$ 5,181	\$ 4,219	\$ 5,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
30		Wastewater Transmission & Distribution	\$ -	\$ 16	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
31		Professional Services	\$ 11,449	\$ 2,306	\$ 11,850	\$ 10,750	\$ 10,750	\$ 10,750	\$ 10,750	\$ 10,750
32		Sewer Televising	\$ 805	\$ 2,328	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
33		Maintenance-Equipment/Buildings	\$ 20,957	\$ 14,893	\$ 15,000	\$ 15,000	\$ 17,500	\$ 17,500	\$ 17,500	\$ 17,500
34		Computer Expense	\$ 795	\$ -	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500
35		Insurance-Liability/Property/Worker's Comp	\$ 9,611	\$ 8,364	\$ 10,523	\$ 18,700	\$ 18,700	\$ 18,700	\$ 18,700	\$ 18,700
36		Telephone	\$ 5,823	\$ 5,729	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500
37		Utilities	\$ 42,327	\$ 43,617	\$ 43,000	\$ 44,000	\$ 45,000	\$ 46,000	\$ 46,000	\$ 46,000
38		Heating Fuel(Michcon)	\$ 6,706	\$ 7,446	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500	\$ 4,500
39		Rental/Lease	\$ 1,118	\$ 292	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
40		Miscellaneous	\$ 78	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41		Subtotal	\$ 126,570	\$ 100,811	\$ 124,373	\$ 130,450	\$ 133,950	\$ 134,950	\$ 134,950	\$ 134,950
42										
43		Total Operating Expenses	\$ 353,001	\$ 334,483	\$ 376,544	\$ 328,542	\$ 344,885	\$ 360,536	\$ 377,030	\$ 395,890
44		Annual Increase		-5.2%	12.6%	-12.7%	5.0%	4.5%	4.6%	5.0%
45										
46	Capital & Debt Service									
47		Capital Replacement/Improvements								
48		Mains	\$ -	\$ -	\$ 235,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
49		Meter Replacement				\$ 17,000	\$ 17,000	\$ 17,000	\$ 17,000	\$ 17,000
50		New Vehicles/Equipment/Rebuild Cash Reserves	\$ -	\$ -	\$ 38,891	\$ 12,000	\$ 24,000	\$ 36,000	\$ 48,000	\$ 63,900
51		Plant Improvements	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
52		Subtotal	\$ -	\$ -	\$ 283,891	\$ 47,000	\$ 76,000	\$ 88,000	\$ 100,000	\$ 115,900
53					% of O&M For Reserve	14%	22%	24%	27%	29%
54		Debt service & Transfers								
55		Transfer To General Fund For Admin & Norway Utilities Authority	\$ 89,610	\$ 83,397	\$ 125,145	\$ 87,548	\$ 93,236	\$ 102,946	\$ 110,553	\$ 119,332
56										
57		Total Capital & Debt Service Costs	\$ 89,610	\$ 83,397	\$ 409,036	\$ 134,548	\$ 169,236	\$ 190,946	\$ 210,553	\$ 235,232
58										
59										
60										
61	TOTAL EXPENDITURES		\$ 442,611	\$ 417,880	\$ 785,580	\$ 463,090	\$ 514,121	\$ 551,482	\$ 587,583	\$ 631,122
62		Annual Increase		-5.6%	88.0%	-41.1%	11.0%	7.3%	6.5%	7.4%
63										
64	REVENUES:									
65	Operating Revenues									
66		Wastewater Sales	\$ 421,801	\$ 401,598	\$ 415,000	\$ 415,000	\$ 415,000	\$ 415,000	\$ 415,000	\$ 415,000
67		Wastewater Capital Equity Rights	\$ 59,990	\$ 102,840	\$ 102,840	\$ 102,840	\$ 102,840	\$ 102,840	\$ 102,840	\$ 102,840
68		Tap Fees	\$ 1,050	\$ 350	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
69		Penalties	\$ 6,454	\$ 7,136	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000
70		Miscellaneous/Insurance Reimbursement	\$ 16,312	\$ 5,709	\$ 4,761	\$ 4,700	\$ 4,700	\$ 4,700	\$ 4,700	\$ 4,700
71		Subtotal	\$ 505,607	\$ 517,633	\$ 530,601	\$ 530,540	\$ 530,540	\$ 530,540	\$ 530,540	\$ 530,540
72	Non-Operating Revenues									
73		Transfers In-	\$ 44,976	\$ -	\$ 20,000	\$ -	\$ -			
74		Interest	\$ 4,305	\$ 2,816	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
75		Developer Contributions		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
76		Bond Proceeds			\$ 250,000					
77		Subtotal	\$ 49,281	\$ 2,816	\$ 273,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
78										
79	TOTAL REVENUES(Under Current Rates)		\$ 554,888	\$ 520,449	\$ 803,601	\$ 533,540	\$ 533,540	\$ 533,540	\$ 533,540	\$ 533,540
80		Annual Increase		-6.2%	54.4%	-33.6%	0.0%	0.0%	0.0%	0.0%
81										
82	ANNUAL NET REVENUE/(DEFICIT) Under Current Rates		\$ 112,277	\$ 102,569	\$ 18,021	\$ 70,450	\$ 19,419	\$ (17,942)	\$ (54,043)	\$ (97,582)
83										
84										



	A	D	E	F	G	H	I	J	K	L
1										
2										
3										
4				TABLE 8						
5			CITY OF NORWAY							
6		PRELIMINARY SEWER FUND ALLOCATION OF COSTS OF SERVICE								
7	w/Goal of 25% of Annual O&M by FY 07/08									
8										
9	<u>Revised 3/8/04</u>									
10										
11	Use City's budgeted annual increase in total expenses (approx 5% increase/year)									
12	Estimated Total Equivalents= City 1308 + 235Twp x 1.25 = 1602									
13	Use 2002 Billed Sewer = 73.8 MG/yr									
14	Assume 2 equivalent/yr									
15										
16										
17				Actual	Adopted	Projected	Projected	Projected	Projected	Projected
18	ITEM			FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08
19	<u>O&amp;M Expenditures &amp; Commodity Rates</u>									
20	Personnel			\$ 216,064	\$ 244,671	\$ 193,892	\$ 206,735	\$ 221,386	\$ 237,880	\$ 256,740
21	Supplies & Materials			\$ 17,608	\$ 7,500	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200
22	Operation & Contractual Services			\$ 100,811	\$ 124,373	\$ 130,450	\$ 133,950	\$ 134,950	\$ 134,950	\$ 134,950
23	Total Revenue Required from Commodity Charges			\$ 334,483	\$ 376,544	\$ 328,542	\$ 344,885	\$ 360,536	\$ 377,030	\$ 395,890
24	Metered Sales, 1000 gals per year			73800	73800	73920	74040	74160	74280	74400
25	Commodity Charge Required per 1000 gallons metered use			\$ 4.53	\$ 5.10	\$ 4.44	\$ 4.66	\$ 4.86	\$ 5.08	\$ 5.32
26	Average Monthly Residential Commodity Charge (Based on 3000gals/month/REU)			\$ 13.60	\$ 15.31	\$ 13.33	\$ 13.97	\$ 14.58	\$ 15.23	\$ 15.96
27										
28	<u>Capital Costs &amp; Readiness-To-Serve Base Meter Rates</u>									
29	Capital Replacement/Improvements			\$ -	\$ 283,891	\$ 47,000	\$ 76,000	\$ 88,000	\$ 100,000	\$ 115,900
30	Existing Annual Bond Prin. & Interest Payments to Norway Authority & General Fund			\$ 83,397	\$ 125,145	\$ 87,548	\$ 93,236	\$ 102,946	\$ 110,553	\$ 119,332
31	Subtotal			\$ 83,397	\$ 409,036	\$ 134,548	\$ 169,236	\$ 190,946	\$ 210,553	\$ 235,232
32	<u>Other Revenue:</u>									
33	Tap Fees			\$ 350	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
34	Penalties			\$ 7,136	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000
35	Miscellaneous/Insurance Reimbursement			\$ 5,709	\$ 4,761	\$ 4,700	\$ 4,700	\$ 4,700	\$ 4,700	\$ 4,700
36	Interest			\$ 2,816	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
37	Transfers In-			\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -
38	Developer Contributions			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39	Bond Proceeds			\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
40	Subtotal			\$ 16,011	\$ 285,761	\$ 15,700	\$ 15,700	\$ 15,700	\$ 15,700	\$ 15,700
41										
42	Revenue Required From Readiness-To-Serve Charges			\$ 67,386	\$ 123,275	\$ 118,848	\$ 153,536	\$ 175,246	\$ 194,853	\$ 219,532
43	Number of Residential Equivalent Meters (REU)			1602	1602	1604	1606	1608	1610	1612
44	Yearly Readiness-To-Serve Meter Charge per REU			\$ 42.06	\$ 76.95	\$ 74.09	\$ 95.60	\$ 108.98	\$ 121.03	\$ 136.19
45	Average Monthly Residential Readiness-To-Serve Meter Charge			\$ 3.51	\$ 6.41	\$ 6.17	\$ 7.97	\$ 9.08	\$ 10.09	\$ 11.35
46										
47										
48	<u>Summary Of Average Monthly Residential User Costs (3000gals/month/REU)</u>									
49	Commodity Charge			\$ 13.60	\$ 15.31	\$ 13.33	\$ 13.97	\$ 14.58	\$ 15.23	\$ 15.96
50	Readiness-To-Serve Base Meter Charge			\$ 3.51	\$ 6.41	\$ 6.17	\$ 7.97	\$ 9.08	\$ 10.09	\$ 11.35
51	Total Estimated Average Monthly Residential User Costs For Balanced Budget			\$ 17.10	\$ 21.72	\$ 19.51	\$ 21.94	\$ 23.67	\$ 25.31	\$ 27.31
52										

TABLE 9 CITY OF NORWAY SEWER RATE SCHEDULE w/ Goal of 25% of O&M in Reserves by FY 07/08									
									Revised 3/08/04
			(5 Months)	Phased FY 04/05					
			Projected FY 03/04	July-Dec 04 FY 04/05	Jan-Jun 04 FY 04/05	Projected FY 05/06	Projected FY 06/07	Projected FY 07/08	
Total Revenue Required:									
	Commodity		\$ 328,542	\$ 172,443	\$ 172,443	\$ 360,536	\$ 377,030	\$ 395,890	
	RTS		\$ 118,848	\$ 76,768	\$ 76,768	\$ 175,246	\$ 194,853	\$ 219,532	
		Total	\$ 447,390	\$ 249,211	\$ 249,211	\$ 535,782	\$ 571,883	\$ 615,422	
Proposed Commodity Revenue									
	Metered Sales, 1000 gals/yr		73920	37020	37020	74160	74280	74400	
	Proposed Commodity Rate \$/1000 gal		\$ 2.50	\$ 3.25	\$ 3.50	\$ 4.25	\$ 5.00	\$ 5.25	
	Commodity Rate Revenue		\$ 184,800	\$ 120,315	\$ 129,570	\$ 315,180	\$ 371,400	\$ 390,600	
	Revenue Required From RTS		\$ 262,590	\$ 128,896	\$ 119,641	\$ 220,602	\$ 200,483	\$ 224,822	
		REU's	1604	1606	1606	1608	1610	1612	
	Calculated RTS/REU/Yr		\$ 164	\$ 80	\$ 74	\$ 137	\$ 125	\$ 139	
	Calculated RTS/REU/Month		\$ 13.64	\$ 13.38	\$ 12.42	\$ 11.43	\$ 10.38	\$ 11.62	
Phase-In RTS Rates/REU			\$ 13.50	\$ 13.75	\$ 13.75	\$ 13.75	\$ 13.75	\$ 13.75	
Generated Revenue From RTS Charges			\$ 259,848	\$ 132,495	\$ 132,495	\$ 265,320	\$ 265,650	\$ 265,980	
Annual Surplus/(Deficit)			\$ 39,950	\$ 3,600	\$ 12,854	\$ 44,718	\$ 65,167	\$ 41,158	
Estimated Cash & Equivalents w/ \$35,000 Capital Outlays & \$17,000/yr meter program				\$ 43,550	\$ 56,404	\$ 101,122	\$ 166,289	\$ 207,447	
Cumulative Goal For Vehicles/Equipment & Cash Reserves By FY 07/08 (25% of O&M)			\$ 185,900						
	Average City Residential Monthly (3000 gallons/month)		\$ 21.00	\$ 23.50	\$ 24.25	\$ 26.50	\$ 28.75	\$ 29.50	
	Annual Increase %		8.0%	11.9%	3.2%	9.3%	8.5%	2.6%	
	Average Twp Residential Monthly(1.25xCity RTS) (3000 gallons/month)		\$ 24.38	\$ 26.94	\$ 27.69	\$ 29.94	\$ 32.19	\$ 32.94	
	Annual Increase %		18.5%	10.5%	2.8%	8.1%	7.5%	2.3%	
Existing Rates For City (Based on 3000 gals/Month):									
	Debt Retirement/User Charge /Meter	\$ 3.44							
	Capital Equity Surcharge	\$ 1.00							
	Subtotal	\$ 4.44							
	For 1st 3000 Gals								
	Usage Charge (\$4.00/1000 gals)	\$ 12.00							
	Capital Equity Surcharge (\$1.00/1000)	\$ 3.00							
	Subtotal	\$ 15.00							
	Min Bill Total	\$ 19.44							
	Min Bill For Twp Residents	\$20.57							



**FLEIS & VANDENBRINK**  
**ENGINEERING, INC.**  
Offices in Grand Rapids, Traverse City and Muskegon  
 2960 Lucerne Drive SE, Grand Rapids, MI 49546  
 Phone: 616.977.1000 Fax: 616.977.1005

TABLE 10
CITY OF NORWAY
SEWER RATE STUDY

**IMPACT OF NEW RATES ON SEWER CUSTOMERS REMAINDER OF FY 03/04**

3/8/2004	
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<p><b>w/ \$35,000/yr Capital Repair/Replacement/Reserve</b></p> <p><b>&amp; Goal of 25% of Annual O&amp;M in Reserves by FY 07/08</b></p>
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## IMPACT OF NEW SEWER RATES ON SELECTED CITY CUSTOMERS

Existing 03/04 Rates-(Min \$19.44/meter w/ 3000 gals & \$5.00/1000 gal Over 3000 for Usage Charge & Capital Equity Surcharge(\$4.00 & \$1.00 per 1000 gals)
-------------------------------------------------------------------------------------------------------------------------------------------------------------

**Proposed Sewer Rates 03/04-(\$13.50/REU/Month & \$2.50/1000 gal)**

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	TYPE OF CITY CUSTOMER	METER SIZE	USAGE PER MONTH	CURRENT SEWER \$\$/MONTH	PROPOSED SEWER \$\$/MONTH	CHANGE \$\$/MONTH	CHANGE IN PERCENT w/ Proposed Sewer Rates
	Residential - small user	5/8" x 3/4"	1,000	\$ 19.44	\$ 16.00	\$ (3.44)	-17.7%
	Residential - small user	5/8" x 3/4"	2,000	\$ 19.44	\$ 18.50	\$ (0.94)	-4.8%
	Residential- average user	5/8" x 3/4"	3,000	\$ 19.44	\$ 21.00	\$ 1.56	8.0%
	Residential- large user	5/8" x 3/4"	5,000	\$ 29.44	\$ 26.00	\$ (3.44)	-11.7%
	Commercial-small user	5/8" x 3/4"	10,000	\$ 54.44	\$ 38.50	\$ (15.94)	-29.3%
	Commercial-average user	1"	84,000	\$ 424.44	\$ 228.90	\$ (195.54)	-46.1%
	Commercial-large user	2"	125,000	\$ 629.44	\$ 351.65	\$ (277.79)	-44.1%
	Large Industrial	4"	2,525,000	\$ 12,629.44	\$ 6,501.50	\$ (6,127.94)	-48.5%



**TABLE 11**  
**CITY OF NORWAY**  
**SEWER RATE STUDY**  
**CITY SEWER CUSTOMERS**  
**CALCULATED RATES THRU JUNE 2005**

**PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : FEB THRU JUNE 2004**

<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>
5/8" x 3/4"	1.00	\$ 13.50
1"	1.40	\$ 18.90
1-1/2"	1.80	\$ 24.30
2"	2.90	\$ 39.15
3"	11.00	\$ 148.50
4"	14.00	\$ 189.00
6"	21.00	\$ 283.50
8"	29.00	\$ 391.50

**PROPOSED WATER COMMODITY CHARGE:** \$2.50/1000 gallons

**PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : JULY THRU DEC 2004**

<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>
5/8" x 3/4"	1.00	\$ 13.75
1"	1.40	\$ 19.25
1-1/2"	1.80	\$ 24.75
2"	2.90	\$ 39.88
3"	11.00	\$ 151.25
4"	14.00	\$ 192.50
6"	21.00	\$ 288.75
8"	29.00	\$ 398.75

**PROPOSED WATER COMMODITY CHARGE:** \$3.25/1000 gallons

**PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : JAN THRU JUN 2005**

<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>
5/8" x 3/4"	1.00	\$ 13.75
1"	1.40	\$ 19.25
1-1/2"	1.80	\$ 24.75
2"	2.90	\$ 39.88
3"	11.00	\$ 151.25
4"	14.00	\$ 192.50
6"	21.00	\$ 288.75
8"	29.00	\$ 398.75

**PROPOSED WATER COMMODITY CHARGE:** \$3.50/1000 gallons

**TABLE 12**  
**CITY OF NORWAY**  
**SEWER RATE STUDY**  
**TOWNSHIP SEWER CUSTOMERS**  
**CALCULATED RATES THRU JUNE 2005**

**PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : FEB THRU JUNE 2004**

<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>
5/8" x 3/4"	1.00	\$ 16.88
1"	1.40	\$ 23.63
1-1/2"	1.80	\$ 30.38
2"	2.90	\$ 48.95
3"	11.00	\$ 185.68
4"	14.00	\$ 236.32
6"	21.00	\$ 354.48
8"	29.00	\$ 489.52

**PROPOSED WATER COMMODITY CHARGE:** \$2.50/1000 gallons

**PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : JULY THRU DEC 2004**

<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>
5/8" x 3/4"	1.00	\$ 17.19
1"	1.40	\$ 24.07
1-1/2"	1.80	\$ 30.94
2"	2.90	\$ 49.85
3"	11.00	\$ 189.09
4"	14.00	\$ 240.66
6"	21.00	\$ 360.99
8"	29.00	\$ 498.51

**PROPOSED WATER COMMODITY CHARGE:** \$3.25/1000 gallons

**PROPOSED WATER MONTHLY READINESS-TO-SERVE METER CHARGES : JAN THRU JUN 2005**

<u>METER SIZE</u>	<u>Meter Equivalency</u>	<u>Proposed Monthly Meter Charge</u>
5/8" x 3/4"	1.00	\$ 17.19
1"	1.40	\$ 24.07
1-1/2"	1.80	\$ 30.94
2"	2.90	\$ 49.85
3"	11.00	\$ 189.09
4"	14.00	\$ 240.66
6"	21.00	\$ 360.99
8"	29.00	\$ 498.51

**PROPOSED WATER COMMODITY CHARGE:** \$3.50/1000 gallons